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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/688,223  
Filing Date: October 16, 2003  
Appellant(s): DICK ET AL.

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Fredrick Koenig III  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/2/2010 appealing from the Office action mailed 12/24/2009.

**(1) Real Party in Interest**

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

39-44

**(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

**(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

WO02/065667 A1	Willenegger et al.	8-2002
6400960	Dominique et al.	6-2002
6711150	Vanghi	3-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 39-44** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Willenegger et al. (PCT Publication # WO02/065667)** in view of **Dominique et al. (USPN 6,400,960)** and further in view of **Vanghi (USPN 6,711,150)**.

Consider **claims 39 and 42**, Willenegger et al. disclose a base station (104) (read as serving wireless transmit receive unit) and a method for implementing transmission power control for user terminals (106) (read as other WTRUs) where user data is signaled to the base station (104) (read as serving WTRU) by the user terminals (106) (read as other WTRUs) in both uplink shared channels available to unspecified user terminals (106) (read as WTRUs) and dedicated UL channels that are assigned for use by a specific user terminal (106) (read as WTRU) in which the specific user terminal (106) transmits data signals on an uplink dedicated channel and sporadically transmits data signals on an associated uplink shared channel (note: the invention as disclosed in

the prior art is for downlink power control and is also applicable to uplink power control as stated in the specification; see pg. 7 lines 20 - 33; pg. 12, lines 22 - 27), the base station (104) (read as serving WTRU) comprising:

a receiver for receiving UL user data from user terminals (106) (read as WTRUs) on UL DCHs and at least one UL SCH (since a base station would inherently have a receiver and transmitter for communications with user terminals and as disclosed the two communication channels are DCH and SCH associated with a particular user terminal; see pg. 7, lines 20 - 33; pg. 12, lines 22 - 27; fig. 1); and

a processor for computing target metric or signal quality for UL DCHs based on the reception of signals transmitted by a WTRU on an UL DCH associated with an UL SCH usable by the WTRU (since power control for downlink channels is disclosed as an example but the invention can be applied to uplink power control (see p. 12, lines 22-27) where a base station or a network unit would compute the target metric instead of the user terminal for uplink power control (see pg. 8, lines 25 - 29));

a shared channel target metric generator configured to output a respective UL SCH target metric derived from computed UL DCH target metric (since power control according to the prior art is done independently on each channel (see pg. 8, lines 21 - 24) by a base station (104) based on signal quality measurement or target metric computation of the channel associated with the channel to be power controlled (see pg. 8, lines 29 - 33)).

However, Willenegger discloses all the limitations but does not explicitly disclose a shared channel target metric generator configured to output a respective UL SCH

target metric derived from a target metric computed for the UL DCH associated with the UL SCH.

In the related field of endeavor, Dominique discloses a shared channel target metric generator (inherently) configured to output a respective updated power threshold for secondary channel (read as UL SCH target metric) derived from a current established power threshold level for associated primary channel (read as target metric computed for the UL DCH associated with the UL SCH) (see col. 8, lines 44 - 58).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Willenegger with the teachings of Dominique in order to provide power control in a given channel during times of discontinuous transmission, where a primary and a secondary channel exist.

However, Willenegger as modified by Dominique does not explicitly disclose using the metric in computing UL channel power adjustments by the other WTRU.

In the related field of endeavor, Vanghi discloses using the target SNR (read as metric) in computing UL channel power increase or decrease (read as adjustments) by the mobile station (read as other WTRU) (see col. 4, lines 40 - 56).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Willenegger and Dominique with the teachings of Vanghi in order to provide power control for a mobile station and to adjust power based on when a quality metric has been determined and comparing such metric to a threshold or target, which is well-known in the art.

Consider **claims 40 and 43** as applied to respective claims, Willenegger et al. disclose the target metrics are target signal-to-noise-plus-interference ratios or SNRs (read as SIRs) and the communication system is a Universal Mobile Telecommunications System or UMTS (since the invention as disclosed in the prior art is applicable to other standards as well; see pg. 8, lines 19 - 21; pg. 12, lines 24 - 27).

Consider **claims 41 and 44** as applied to respective claims, Willenegger et al. disclose the UMTS has open loop transmission power control for WTRU transmissions and the SCHs for which SCH target SNRs (read as SIRs) are generated are for high data rate packet transmission (read as High Speed Shared Information Channels) which operate in conjunction with High Speed Downlink Shared Channels wherein (see pg. 7, lines 26 - 28): said base station (104) (read as network unit) is a UMTS Terrestrial Radio Access Network that includes a transmitter configured to transmit TPC commands that are indicative of DCH and HS-SICH target SNRs (read as SIRs) (see pg. 10, lines 1 - 7); and said user terminals (106) (read as WTRUs) each include a receiver configured to receive respective DCH and HS-SISCH target SNRs (read as SIRs) such that the user terminal's (read as WTRU's) processor computes transmit power (read as power adjustments) based on the received TPC command that are indicative of the DCH and HS-SICH target SNRs (read as SIRs) (see pg. 10, lines 1 - 17; fig. 1).

#### **(10) Response to Argument**

Appellant argues on page 9 that "however, Willenegger specifically teaches the use of independent power control loops for each channel."



Examiner agrees. Willenegger is deficient, as admitted in the last Office Action, in disclosing a power control metric for a given channel based on another channel's quality metrics. However, Dominique discloses "dependent" power control for two given channels (see col. 8, lines 44-58; abstract; cited portions of Dominique in the appeal brief).

Appellant argues on page 9 that Dominique does not specify whether the primary channel can be a dedicated channel (DCH) when the related secondary channel is an associated shared channel (SCH) which is the context of the appealed claims.

Examiner respectfully disagrees.

Willenegger already discloses a dedicated physical channel (DPCH) and a shared channel (PDSCH) (see pg. 7, lines 20-30). In addition, same power control techniques can be applied to downlink and uplink channels (see pg. 12, lines 22-29). Dominique need not disclose the channels again explicitly as long as the channels as disclosed by Dominique are two channels associated with each other and assigned to a single user, like the primary and secondary channels (see abstract).

Appellant argues on pages 10-12 that Willenegger and Dominique teach individual power control for each channel based on that channels power measurements, except for a special case where it is first determined the secondary channel is in DRX mode based on secondary channel power measurements.

Examiner respectfully disagrees.

Dominique does not teach independent power control for each channel as admitted and analyzed according to the appellants own arguments in the Appeal Brief. It

is clear from the appellant's admission and cited portions of Dominique that, while in DTX mode quality metrics for the secondary channel are determined based on the primary channel quality metrics. The claim is interpreted to be in the DTX mode in view of Dominique.

Appellant argues on page 14 that the serving WTRU defined by Claim 39 requires "a receiver configured to receive UL user data from another WTRU on an UL DCH and at least one UL SCH" and "a processor configured to compute UL DCH target metrics based on the received UL user data on the UL DCH..." An example of the claimed receiver and processor elements are depicted in application Fig. 4; receiver 46 representing the claimed receiver and processor components 34, 36 representing the claimed processor. Such elements are reasonably encompassed by the teachings of the cited prior art.

Examiner respectfully disagrees.

Willenegger clearly discloses a base station to carry out power control functions for uplink and downlink channels (see fig. 1). A base station would inherently have a receiver and a processor. Therefore, a receiver and a processor are encompassed by the Willenegger reference.

Appellant argues on pages 15-16 that Dominique does not teach the claimed "shared channel target metric generator configured to output a respective UL SCH target metric derived from each computed UL DCH target metric." In Dominique, the primary channel threshold power metrics  $P(k)$ ,  $P(k+1)$  are used after a determination is made that the secondary channel is in a DTX mode, which determination is based on

the measured power of the secondary channel. Only then are the primary channel metrics  $P(k)$ ,  $P(k+1)$  used to determine the secondary channel metric  $S(k+1)$  as per Dominique column 6, line 58 through column 7 line 23.

Examiner respectfully disagrees.

As previously admitted and here again admitted that "...the primary channel threshold power metrics  $P(k)$ ,  $P(k+1)$  are used after a determination is made that the secondary channel is in a DTX mode...". Regardless of the fact when the determination or computation for the secondary channel metric is made, it is nonetheless made in the manner as presented by the appellant's claim. Therefore, Dominique discloses a "shared channel target metric generator".

Appellant argues on pages 17-18 that Dominique does not teach anything equivalent to the claimed "shared channel target metric generator configured to output a respective UL SCH target metric derived from each computed UL DCH target metric," since the primary channel metric  $P(k)$  is not used for initially determining the secondary channel metric  $S(k)$  either initially or when the secondary channel is determined to be in DTX mode through measuring the secondary channel. For example, at an initial time "0," primary channel metric  $P(0)$  is not used for determining the secondary channel metric  $S(0)$ . If at time "1," the secondary channel is not in DTX mode, primary channel metric  $P(1)$  is not used for determining the secondary channel metric  $S(1)$  per Dominique column 7 lines 6- 10. If at time "2," the secondary channel is in DTX mode, primary channel metrics  $P(1)$  and  $P(2)$  are used for determining the secondary channel metric  $S(2)$  per Dominique column 7 lines 18-23. However, primary channel metric  $P(0)$

is then never used to determine the secondary channel metric  $S(k)$  at any time "k" as would be required for a component the same or equivalent to the claimed "shared channel target metric generator."

Examiner respectfully disagrees.

Dominique extremely and the appellant clearly acknowledges that "...the primary channel threshold power metrics  $P(k)$ ,  $P(k+1)$  are used after a determination is made that the secondary channel is in a DTX mode...". Therefore, the claim is reasonably interpreted in the DTX mode and thus the  $P(0)$  metric is not required since the secondary channel was not in the DTX mode.

Appellant argues on pages 19-21 that there is no suggestion in Dominique to forgo the secondary power measurement and DTX determination processing which the claimed invention makes superfluous. Here, both applied references that discuss power control for multiple channels, teach measuring components and steps of each power controlled channel. This teaches away from the benefit realized through the claimed invention of the elimination of the measuring components and related processing of the received SCH to determine SCH power control metrics where there is a related received DCH.

Examiner respectfully disagrees.

The claimed invention does not prohibit the use of additional components of methods, such as DTX mode or secondary channel power level measurement. Therefore, the combination of cited prior art encompasses all claimed limitations in an obvious manner.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/F. A./

Examiner, Art Unit 2618

Conferees:

/Edward Urban/

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/Matthew D. Anderson/

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